The Case for Full-Width Platysma Transection and Rotation

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Abstract. The long-term evaluation of results in 209 neck rhytidoplasties is presented, comparing different surgical techniques. The results of skin-tightening neck lifts, partial platysma severing, and SMAS pllication procedures in 74 cases (35.4%) are analyzed. Under the same parameters, the results obtained in another comparative group of 135 patients (64.6%) in which a full-width platysma transection and rotation were carried out between 1980 and 1995 by the main author of this paper.

The postoperative evaluation after five to 20 years (average 8.6 years) in 140 cases (66.98%) of the 209 cervical rhytidoplasties is reported.

The argument in favor of the full-width platysma transection and rotation is focused on the vertical neck bands and the neck angularity deterioration, its etiology and anatomic and physiologic facts that support the indications of this technique. These considerations also explain the poor results obtained when other procedures are used to deal with the vertical neck bands and cervical angularity deterioration, when the purpose is a durable correction of these anomalies.

Key words: Rhytidoplasty—Neck lift—Platysma—Vertical neck bands

The optimal surgical procedure for improving alterations caused by aging, motion, and obesity in the neck, remains a controversial topic that has motivated the publication of new classifications of the problems and their appropriate treatments, based on their features, in an attempt to simplify them.

The proposed alternatives, as well as the conventional rhytidectomy, are still indicated and their results are adequate. But in the presence of vertical neck bands very often a relapse of this deformity is observed a few months after surgery when the patient moves and, later, the vertical neck bands are noticeable even during relaxation. The satisfactory restoration of neck angularity and the elimination of the vertical neck bands, on a long-term basis, are best achieved with the full-width platysma transection and rotation, a procedure practically condemned in the last ten to fifteen years. The purpose of this paper is to rescue the application of this technique based on the analysis of the problem and the results hereafter reported. The successful practice of this procedure is due to the similar anatomic and physiological reasons on which is based the ancient principle of the z-plasty.

On the other hand, it is a fact that full-width platysma transection and rotation is laborious and a time-consuming procedure, demanding surgical skills and deep anatomical knowledge of this region.

Historical Background

Between the second and third decades of the previous century, Bourget described the influence of the platysma in the vertical neck bands and proposed that severing them would improve the neck shape (as quoted by Marchac [13]). In the fifty years following his publication, neck rhytidoplasties were done by skin tightening or open lipectomies [4,14,22]. In the seventies the concepts of Owsley, Rees, Aston, Connell, and de Castro established principles for understanding and to treating the causes of the complex anatomic and physiological aesthetic disorder of the vertical neck bands and the improvement of the neck angularity [2,5,7,8,16,20]. Several variants and modifications to platysma surgi-
Fig. 1. (A) Post-rhinoplasty profile of patients showing a traumatic scar on the chin. 
(B) The same patient twenty-nine years later, consulting for a rhytidectomy. Note the scar following the skin ptosis and the pendulous neck vertical bands. 
(C) Face and neck of a model with a latex bands fixed to the chin and the suprasternal notch and a rigid band resembling the ideal neck angle position. 
(D) After the release of the rigid band the elastic band adopts a straight line (the shortest distance) from the chin to the thorax.

Fig. 2. Face and neck profiles of patients consulting for a rhytidoplasty: (A) mandibular prognatic patient; (B) normal chin projection; (C) under-projected chin.

Anatomic and Physiologic Considerations

The platysma is a flat, thin muscle (2–3 mm thick), practically subcutaneous, though it can be covered by a variable amount of fat tissue, mainly in its upper half. Its cephalic end is inserted on the SMAS and its